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The diameter of the sun, in a horizontal direction, was measured just after the transit, and found to be = $31' 30.8''$.

The clock at Savile-House was several times compared with my clock in Surry-Street, from Friday evening, the 5th June, to Monday evening, the 8th June; so that I am as sure of the time at Savile-House, as if the observation had been made at my house in Surry-Street.

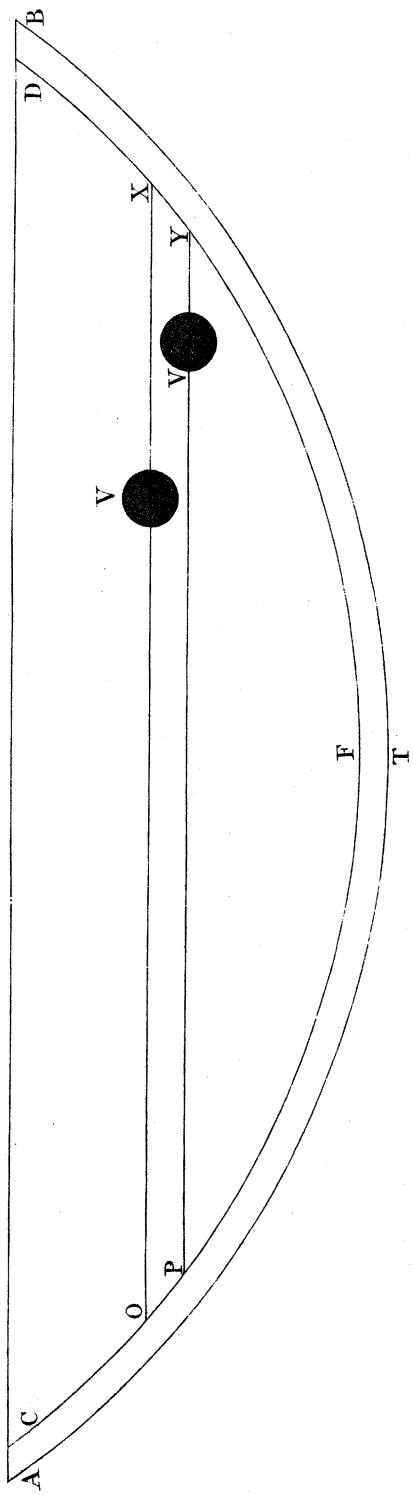
Ja. Short.

XXXIV. *Observations on the Transit of Venus, June the 6th, 1761, made in Spital-Square; the Longitude of which is 4' 11" West of the Royal Observatory at Greenwich, and the Latitude 51° 31' 15" North; by John Canton, M. A. and F. R. S.*

Read Nov. 5, 1761. Having measured the diameter of Venus, on the sun, three times, with the object-glass micrometer, the mean was found to be 58 seconds; and but $\frac{6}{10}$ of a second, the difference of the extremes *.

* With the same micrometer, the diameter of Venus was measured, off the sun, twelve times, March the 29th, 1758, about noon; and the mean was $1' 1'' 42'''$; whence the diameter, at the time of the transit, ought, by computation, to have been $1' 0'' 19'''$.

The



The diameter of the sun, from four observations very nearly agreeing with each other, was $31' 33'' 24''$.

	h. m. s.
The time, by the clock, of the internal contact, was	$\left. \begin{array}{r} 8 \\ 17 \\ 4 \end{array} \right\}$
Of the external contact	$8 35 27$
Of noon	$11 58 24\frac{1}{2}$
Therefore the apparent time of the first contact, was	$\left. \begin{array}{r} 8 \\ 18 \\ 41 \end{array} \right\}$
Of the last contact	$8 37 4$

The two positions of Venus on the sun's disc, [*Vide Tab. VI.*] in chords parallel to the equator, were determined by frequently measuring the parts of such chords on each side the centre of the planet, with the object-glass micrometer; which was done with difficulty, both on account of the clouds, and the telescope's not having an equatorial motion.

Let the arc A T B represent a part of the sun's limb; let C F D be parallel to it, at the distance of a semidiameter of Venus; and let O V X and P V Y be parallel to the equator. At $7^h 14^m 39^s$ A. M. apparent time, O V was $14' 43''$, and V X $5' 32''$. At $7^h 57^m 21^s$, P V was $16' 36''$, and V Y $1' 56''$.

These observations were all made with a reflecting telescope of 18 inches focal length, which magnified about 55 times.